

states that the reference teaches a composite dielectric ceramic dielectric comprised of a ceramic material, disclosed at col. 3, lines 47-50, and an organic polymer, disclosed at col. 4, lines 26-31).

The organic polymers disclosed at col. 4, lines 26-31 are temporary binders used in the formation of the green ceramic body. Although not specifically stated by the reference, it is well-known that these binders are volatilized and driven off during sintering, leaving only inorganic ceramic material.

As evidence that the temporary role of such organic binders in the production of ceramics is well known, Applicant encloses herewith a print-out from a web page of Koyo Thermo Systems, a furnace manufacturer. The print-out includes a description of the role of binders in ceramics production, e.g., in the section entitled Debinding, Decarbonization. It is there stated (near the top of page 1) that "The green body contains beside the ceramic powder normally also moisture and organic binders." and further "all organic materials, which are volatile, ... have to be removed from the ceramic green body."

Since Hansen et al clearly refer to the organic polymers as binders used in the formation of green ceramics, it would be well known that such binders would be driven off during sintering at 1100 to 1400 degrees C. Accordingly, Hansen et al do not teach a composite ceramic body of a ceramic dielectric and an organic polymer.

In contrast to the teachings of Hansen et al., Applicant teaches heating his composite body at a much lower temperature, eg., 400 degrees C, to initiate polymerization (see page 5, line 3 of the specification). Such a temperature is known not to be sufficient to break down or volatilize and drive off the organic material.

Accordingly, Hansen et al do not anticipate Claims 1-11, and it is urged that the rejection be withdrawn.

Claim 12 stands finally rejected under 35 USC 102(b) as being anticipated by Hirai et al. The Examiner cites col. 8, lines 20-22 for the proposition that the filter of Hirai et al. contains organic polymer.

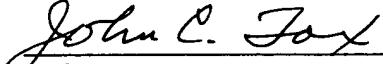
However, like Hansen et al., Hirai et al. adds the organic polymer as a binder to form a green sheet of ceramic powder (col. 8 22-24). The green sheet was subsequently formed into a stack and fired at 900 degrees C. (col. 8, line 33), a temperature sufficient to drive off the binder.

Accordingly, Hirai et al. do not teach a filter of a ceramic and organic polymer, and do not anticipate claim 12, and it is urged that the rejection be withdrawn.

In view of the foregoing, Applicants respectfully request that the Examiner withdraw the rejections of record, allow all the pending claims, and find the present application to be in condition for allowance. If any points remain in issue that the Examiner feels may best be resolved through a personal or telephonic

interview, he is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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